

WASTE REDUCTION

The purpose of this element is to ensure, at a minimum, a 25 percent per capita reduction in the amount of solid waste. The 1990 Georgia Solid Waste Management Plan set 1996 as the year this percentage of waste reduction was to be met. As was mentioned, the State of Georgia did not meet this goal. However, in 1997 the State Attorney General confirmed that this reduction goal does still exist.

In 1993 Fayette County and each of its municipalities developed solid waste management plans and implemented reduction programs. The following is a brief summary of reduction programs for the county and each of the municipalities.

Brooks: Brooks offers curbside recycling to its 98 subscribing households through its contract with a private collection company. Subscription to the service is voluntary. Materials collected include aluminum cans, bi-metal cans, cardboard, glass, magazines, newspaper, phone books and plastic bottles.

Fayette County (Unincorporated): Fayette County provides an area at the transfer station where all Fayette County citizens can drop off recyclable materials and yard waste. Recyclable materials collected include aluminum cans, appliances, bi-metal cans, cardboard, glass, newspaper and plastic bottles. Table 11. indicates the amount of solid waste diverted from the transfer station.

TABLE 11.
WASTE DIVERSION AT FAYETTE COUNTY TRANSFER STATION IN TONS

	Solid Waste	Recyclable	Yard Waste	Total	Percent Diverted
FY 1995-96	43,327	443	1,349	45,119	4.0%
FY 1996-97	54,285	637	1,895	56,817	4.5%
FY 1997-98	72,487	624	1,869	74,980	3.3%

Source: Fayette County Engineering

Some of the private collection companies serving the unincorporated county offer recycling service to their customers. However, data on the amount of recycling materials collected is not presently available.

Fayetteville: Fayetteville contracts with a private collection company for once a week pickup of recyclable materials. Fayetteville bills all single-family households (3,827) for this service regardless of participation. Materials collected include aluminum cans, cardboard, glass, magazines, newspaper and plastic bottles. Table 12. indicates the amount of solid waste diverted by the City's contractor.

TABLE 12.
WASTE DIVERSION IN FAYETTEVILLE IN TONS

	Solid Waste	Recyclable	Total	Percent Diverted
1994-95	3,106	320	3,426	9.3%
1995-96	3,245	497	3,742	13.3%
1996-97	2,480	420	2,900	14.9%

Source: Fayetteville Planning Department

Peachtree City: Peachtree City provides a staffed facility on S.R. 74 where Peachtree

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City citizens can drop off recyclable materials and yard waste. The facility is open two days a week. This facility accepts aluminum cans, cardboard, glass, magazines, miscellaneous metals, newspaper and white paper. To date, approximately 403 tons of recyclable material was collected at this facility in 1998. Peachtree City also maintains an unmanned drop-off facility at the Public Works building that accepts magazines, newspaper and white paper.

Peachtree City has an ordinance requiring private collection companies to provide curbside recycling to residential customers within the city. Peachtree City indicates the two companies that primarily serve residential customers do offer curbside recycling. However, data on the amount recycling materials collected is not presently available.

Tyrone: Tyrone provides once a week curbside pickup of recyclable materials and bi-weekly pickup of yard waste to 1,230 households through its contract with a private collection company. Subscription to the service is voluntary. Materials collected include aluminum cans, cardboard, glass, magazines, newspaper and plastic bottles. Table 13. indicates the amount of solid waste diverted by the City's contractor.

TABLE 13.
WASTE DIVERSION IN TYRONE IN TONS

	Solid Waste	Recyclable	Total	Percent Diverted
1993-94	811	119	930	12.8%
1994-95	965	130	1,095	11.9%
1995-96	986	135	1,121	12.0%
1996-97	962	139	1,101	12.6%
1997-98	1,054	210	1,264	16.6%

Source: Waste Management of Atlanta

Tyrone provides recycling containers at the Town Hall and an area for citizens to drop-off yard waste. In addition, Tyrone picks up yard waste on a monthly basis.

Nongovernmental Recycling Facilities

There are many nongovernmental recycling facilities located in Fayette County and its municipalities. These facilities range from bins for paper, glass and aluminum cans placed by private companies in parking lots to businesses which accepts items such as antifreeze, batteries, motor oil and tires to businesses which actually buy recyclable materials such as scrap metals. KFB maintains a list of some of these locations in its Fayette County Recycling Guide (See Appendix B.).

Southeast Paper Recycling, Inc. has 33 bins placed in Fayette County to collect newspaper, magazines and white paper. The company reports that 1,454 tons of newspaper and 124 tons of magazines and white paper were collected in FY 1997-98. A representative of Southeast Paper has indicated that the company is willing to regularly provide data on the amount of recyclable materials collected in Fayette County.

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ASSESSMENT

Recycling efforts of varying degrees are being pursued by Fayette County and its municipalities. While each entity is individually implementing their solid waste plans and reduction programs, the overall process is fragmented. Data on the amounts of solid waste and recyclable materials collected are not being provided and as a result it is difficult to evaluate waste reduction programs.

The 1990 Georgia Solid Waste Management Act requires that the per capita solid waste generation rate be reduced by 25 per cent using the per capita rate of FY 1991-92 as a base. Utilizing the same per capita production factors as described on page seven, this reduction rate can be formulated.

In 1992 the daily per capita generation rate for solid waste was 6.58 pounds. A 25 percent reduction would result in a daily per capita rate of 4.93 pounds. This was formulated with an estimated population of 66,800 and an estimated number of 19,380 employees (Source: ARC). Table 14. illustrates the reduction goals.

TABLE 14.
AMOUNT OF SOLID WASTE REDUCED PER CALENDER YEAR, 1999 to 2008

	Population	Total Tonnage	Reduction Tonnage	Target Tonnage
1999	92,490	113,202	29,909	83,293
2000	95,900	117,611	31,248	86,363
2001	99,360	123,941	34,462	89,479
2002	102,820	128,506	35,911	92,595
2003	106,280	133,071	37,360	95,711
2004	109,740	137,635	38,808	98,827
2005	113,200	142,200	40,257	101,943
2006	117,180	147,239	41,712	105,527
2007	121,160	152,635	43,523	109,112
2008	125,140	158,031	45,335	112,696
	TOTAL	1,354,071	378,525	975,546

Source: ARC and Fayette County Planning Department

GOALS

1. Provide a central forum to address waste reduction initiatives in Fayette County.
2. Increase public awareness of solid waste reduction through public education.
3. Develop and implement a data collection system to track the collection of recyclable materials by private collection companies and nongovernmental recycling facilities.
4. Increase waste reduction opportunities to achieve a 25 percent reduction of solid waste.

IMPLEMENTATION

Keep Fayette Beautiful: KFB attained certification as an affiliate of Keep America Beautiful just over a year ago, at which time a Board of Directors was established. KFB is still in the development stages, which requires a great deal of administrative and organizational work. KFB presently functions with one staff person, the director. The director is paid as a consultant, receives no benefits and is responsible for payment of all income taxes and self-employment tax (basically, both employer and employee portions of social security). The Board of Directors and committees are presently made up of citizen volunteers, representatives of each municipality and various civic organizations.

The key to solid waste reduction is public education. The primary focus of KFB is public education. KFB administers the Keep America Beautiful curricula. This is an educational program that is used in the Fayette County School System. KFB also works in concert with the Cooperative Extension Service and coordinates environmental education

KFB administers the following community programs: a list of recycling sites in the county; Earth Day activities; Christmas tree mulching and phone book recycling; the no-litter program at the Kiwanis Fair and the Master Composter, Waste in the Workplace, America Recycles Day and Clean Builders programs. Future programs include: development of a KFB website; increased newspaper articles, press releases and possibly a regular newspaper column; quarterly water bill inserts; use of local radio and cable for public service announcements; litter free organization for local events; teacher workshops to present Keep America Beautiful Curricula; expanded use of compost demonstration site in Peachtree City and development of a speakers bureau.

As was previously mentioned, the purpose of a consolidated plan is to establish a central effort to address solid waste issues. KFB should be utilized as a solid waste coordinating organization for the entire county. The Recycling and Solid Waste Subcommittee (RSWS) of the KFB Board of Directors should have a designee involved in solid waste management from each of the municipal jurisdictions in Fayette County as well as representatives of the private collections companies operating in the county. The inclusion of governmental staff and private collection company representatives on this committee will provide a forum to discuss mutual problems and solutions to solid waste reduction.

For KFB to increase its level of activity to assist in the fulfillment of goals stated in this plan it will require more funding. Fayette County is currently funding KFB at a level of \$25,000.00 per year. Additional funding for the director's salary comes from the Cooperative Extension Service for coordinating their environmental education programs. A request for more funds to expand services and hire an administrative assistant was not approved in the last budget. Table 15. illustrates the Keep Fayette Beautiful requested and approved budget for FY 1998-99.

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TABLE 15.
KEEP FAYETTE BEAUTIFUL REQUESTED AND APPROVED BUDGET,
FY 1998-99

Budget Item	Requested Budget	Approved Budget
Director Compensation	\$21,685	\$16,537
Administrative Assistant	16,230	0
Office/Computer Equipment	6,000	0
Printing, Postage, Supplies, Photo, Mics.	3,000	1,958
Educational and Community Programs	3,500	3,600
KAB Curriculum Workshops for Teachers	1,000	350
PR, Awards, Promo, Volunteer Recognition	3,000	1,550
Travel, Mileage, Training	2,000	455
KAB Annual Certif., Photometric Index	650	430
Publications, Education, Resources, Dues	1,000	120
TOTAL	\$58,065	25,000

Source: Keep Fayette Beautiful

Table 16. illustrates a suggested KFB five year budget for the expansion of community education programs on solid waste management, recycling and environmental protection:

TABLE 16.
KEEP FAYETTE BEAUTIFUL FIVE YEAR BUDGET, FY 1999-00 TO FY 2003-02

Budget Item	FY 99-00	FY 00-01	FY 01-02	FY 02-03	FY 03-04
Director Compensation*	\$18,000	\$19,350	\$20,800	\$22,360	\$24,040
Administrative Assistant**	6,000	8,000	11,250	14,250	20,000
Office/Computer Equipment	300	3,000	500	500	3,000
Printing, Postage, Supplies, Photo, Mics.	2,000	3,000	5,000	7,000	10,000
Educational and Community Programs	3,600	4,000	4,400	5,000	5,500
KAB Curriculum Workshops for Teachers	500	600	720	865	1,035
PR, Awards, Promo, Volunteer Recognition	1,550	1,630	1,700	1,785	1,875
Travel, Mileage, Training	500	550	625	750	1,000
KAB Annual Certif., Photometric Index	430	455	500	575	700
Publications, Education, Resources, Dues	120	150	200	300	500
TOTAL	\$33,000	\$41,235	\$45,695	\$53,385	\$67,650

* This reflects only 60% of Director's total compensation, no benefits or FICA. Assumes an additional 40% is funded by Extension.

** This reflects a part-time to full-time progression with no benefits or FICA.

Source: Keep Fayette Beautiful

The following are potential options for increasing funding and resources for Keep Fayette Beautiful:

1. The cities within Fayette County should consider assisting in the funding of KFB. KFB will put together a proposed budget package to present to the county and cities prior to the FY 1999-00.
2. KFB is considering offering corporate and individual memberships to increase funding.
3. Shared revenue from public recycling centers or programs where KFB is involved in the implementation or management of said centers or programs.

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4. Encourage businesses and civic organization to sponsor educational programs through in-kind or cash donations.

Brooks: Brooks will continue to offer curbside recycling services using the contracted private collection company. Utilizing KFB for a public education program could increase the rate of participation. This program would inform citizens of the environmental and economic benefits of reducing solid waste and encourage them to subscribe to the Town's collection program. KFB could work with the contracted private collection company to make the recycling program more efficient. In addition, Brooks should utilize KFB to organize a no-litter program for public events.

Fayette County (Unincorporated): Fayette County should approach its waste reduction efforts from the direction of the public demand for waste reduction services. A survey distributed as a water bill insert would provide input from the public to determine the public demand for these services. The County should utilize the technical assistance of KFB and DCA to design the survey and interpret the results. A gauge of the public demand for these services would aid the County in developing a waste reduction program that is responsive to the need of its constituents.

Not all of the private collection companies serving the unincorporated county offer recycling services. However, due to the poor response of the private collection companies to the survey in the Collection Element a determination as to what percent of the county has access to curbside recycling services is not possible. The aforementioned public survey could provide some insight into the participation rate of curbside recycling. While the County could require all private collection companies serving the unincorporated area to offer recycling services, this still does not guarantee that citizens would use the service. Private collection companies not presently offering recycling services would incur the expense of purchasing equipment and hiring additional employees and the extra administrative burden of getting rid of the materials after they are collected.

If there is a demand, the County should explore the feasibility of developing a staffed recycling facility on County owned property on McDonough Road. McDonough Road is the site of McCurry Park; a well used recreational facility, and the Public Works Department. This would establish a very accessible location for the eastern portion of the county due to its location and the high number of park users. The County, with the technical assistance of KFB, should study the feasibility of the facility and, if feasible, seek GEFA grants for technical assistance (design of site), materials (fencing) and construction. Public Works could supply some construction needs and possibly budget for a part-time position to man the facility.

In time, when Peachtree City has fully developed its new recycling center with a possible processing facility, Fayette County and Peachtree City should consider the feasibility of combining efforts. Large steady volumes of recycled materials that are preprocessed are more valued to end-users and could provide a financial return. Another consideration to

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explore is how these facilities could serve the private collection companies, which are providing curbside recycling services in the county. A drop-off facility located in the county closer to their routes could reduce their transportation costs.

Fayetteville: Fayette has proposed the following options for consideration:

Option 1: Allow the existing curbside recycling program to continue on a voluntary basis. This would allow citizens to decide if they wish to participate in recycling. As public awareness of waste issues increases, the residential recycling rate should also increase. While this option would be the easiest to administer, it may not result in a large reduction of waste volumes.

Option 2: Implement a mandatory recycling program for residential generators. This option would require the City to monitor the waste stream and develop ordinances that would outline penalties for those generators not complying with City regulations. This option if properly administered would have a significant impact on the City of Fayetteville's waste reduction program. This option would also be the most difficult to administer, due to the amount of monitoring that would be necessary in order to make the program effective. Mandatory programs are usually not very well received by the general public.

Option 3: Develop ordinances that would require commercial and industrial generators to submit annual reports to the City documenting waste reduction efforts. Under this option the City would impose an annual surcharge on those businesses that cannot provide proof of effective waste reduction programs. This option would allow businesses to tailor a program that is unique to their product or service. Since the commercial and industrial sector generates the largest percentage of solid waste in Fayetteville, this option could have a significant impact on reducing the City's waste stream.

Option 4: Develop a fee system based on the volume of waste generated by each household or impose an additional fee (such as a surcharge) on those households that opt not to recycle. This type of system would allow the consumer to have a direct impact on the amount they pay for waste services.

The objective of each option is to meet the State 25% reduction goal in the most cost-effective manner. While the City curbside recycling program has been successful, it is not likely to yield the 25% reduction. Therefore, it is reasonable to assume that a combination of options will be necessary to achieve the goal.

In 1993, state law prohibited the landfilling of yard waste in the State of Georgia. To assist Fayetteville citizens, the City should promote backyard composting through a public education program as a means of dealing with this waste. Materials that are commonly composted in a single-family residential setting include leaves, small wood wastes, and grass clippings. Large wood wastes such as trees, stumps, limbs, and shrubs should be transported to a facility and ground to produce mulch.

It is recommended that the City utilize the services of KFB to disseminate educational

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materials to promote backyard composting and recycling. The City is not required to participate in funding to receive services from KFB. However it is recommended that the Mayor and Council consider annually funding KFB. Such funding would help offset KFB's operational costs and support educational activities in Fayetteville.

Peachtree City: Future plans to help divert more recyclable materials from the waste stream include a new recycling center in Peachtree City to accommodate more materials and provide a more centralized location. The existing facility is located at the south end of the City, out of the mainstream of traffic and circulation. The new facility will be located on S.R. 74 near the Flat Creek Water Treatment Facility on land provided by Peachtree City. A portion of the facility will be funded with an \$80,000.00 GEFA grant approved in April of 1998 with other costs shared between jurisdictions using the facility. Peachtree City, with KFB and Fayette County as partners applied for the grant. With a grant from GEFA and the land being provided by the City, there remain a couple of issues to be resolved relative to its operation. The scope of the grant will include the construction of a building to house future sorting and baling operations. Certainly, the center could benefit the western half of the county and will, perhaps, prompt discussions for another facility to serve the eastern half of the county. Table 17. illustrates the costs and construction schedule for the new center.

TABLE 17.
COSTS AND CONSTRUCTION OF RECYCLING FACILITY

Action	Costs	Year
Environmental Assessment	\$6,500	1998
Obtain Option on Property	-	1998
Purchase property	\$200,000	1999
Site and Building Design	6,000	1999
Construct Facility	125,000	1999
TOTAL	337,500	

Source: Peachtree City Department of Engineering

Peachtree City is the home to more than 100 large businesses and industries. As a result, it would be expected that the bulk of the waste generated within the City have its source in these commercial producers. Commercial/Industrial waste generators contribute far more waste than that of the residential generator. It is estimated that this ratio is 3:1. Therefore, more emphasis needs to be placed on reduction in this market. Currently, the commercial waste haulers operating within Peachtree City must make recycling services available to businesses according to local ordinance. However, most of the recycled goods collected consist of office paper. While office paper does contribute the most to the waste stream, efforts at encouraging reuse, recycling other materials, and reducing packaging and produced goods should be aimed at the commercial/industrial sector of the community. These efforts should only increase in proportion to the growth in the industrial park, which is expected to continue for the next several years.

The recycling program needs to expand into the industrial and commercial districts within the city. The majority of the waste stream is generated by this sector of the community and as a result should make greater efforts at recycling, reducing, and reusing. Past education and coordination efforts seemed to stall due to a lack of

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motivation on the part of industry. Consequently, incentives need to be the primary element in this campaign. However tax incentives for equipment to reuse and/or recycle products or packaging are not legal under current State law. As has been the intention in the past, Peachtree City should consider a franchise agreement for commercial/industrial solid waste pick up. This would give more control over the service provider than in our current situation.

With regard to residential service, Peachtree City does well at promoting waste reduction. Several strategies are being proposed which would have immediate impact. The first such strategy would be to create incentives for curbside recycling, by mandating a volume based rate structure among the service providers. In a similar fashion, but less obtrusive, would be to impose restrictions on the size containers that sanitation companies provide. Also, more controls can be prescribed on the frequency of pick up.

Peachtree City residents and businesses have borne the cost of waste disposal, with no involvement from the City for many years. The total market in this community has been estimated at \$3,750,000 plus. Residents generate as much as a million and a half dollars in revenue for service providers. As the City has not become involved in waste disposal, no revenues have been generated for use in these programs.

Therein lies one of the problems faced by Peachtree City. The funding necessary to operate a recycling center or any other waste related program must come from the General Fund. As such, there are many objections when requests are made to divert monies to augment or improve such facilities. The current costs, as reported in the 1998 Full Cost Report to DCA, for providing recycling services were \$30,470. This figure includes salaries for time allocated to the recycling center and the overall recycling cause by city personnel.

More emphasis needs to be placed on a full time Solid Waste Program Manager. That can be a part of the support for a Keep Fayette Beautiful staff member or a City employee. The management of solid waste needs to be tracked and be subject to more scrutiny.

Tyrone: Tyrone will continue to offer curbside recycling and yard waste services using the contracted private collection company, continue to provide bins for recyclable materials at City Hall and make provision for yard waste in the form of an area for collection and monthly pick up of yard waste. Utilizing KFB for a public education program could increase the rate of participation. This program would inform citizens of the environmental and economic benefits of reducing solid waste and encourage them to subscribe to the Town's collection program. KFB could work with the contracted private collection company to make the recycling program more efficient. In addition, Tyrone should utilize KFB to organize a no-litter program for public events.

Woolsey: Woolsey will continue to work with Fayette County as it did in the Solid Waste Management Plan developed in 1993. Woolsey should utilize KFB for a public education program. This program would inform citizens of the environmental benefits of

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reducing solid waste. In addition, Woolsey should utilize KFB to organize a no-litter program for public events.

The Fayette County School System: KFB and the RSWS will work with the Fayette County School System staff to establish a system-wide recycling program. Present programs will be analyzed for their effectiveness and recommendations for a more comprehensive approach will be developed.

Commercial, Industrial and Institutional: As has been previously mentioned, the reduction of waste from commercial, industrial and institutional facilities has not been given the attention that residential waste has received. In 1996 several state agencies undertook studies to acquire a better understanding of solid waste management in the state. One of the findings from the study was the amount of waste coming from nonresidential sources had been underestimated. A survey of landfill operators suggested that 60 per cent of the waste disposed in Georgia's landfills be of a commercial or industrial nature. Present solid waste plans in Fayette County have emphasized reduction of residential waste and not nonresidential waste. The Pollution Prevention Assistance Division (P2AD) of the Georgia Department of Natural Resources provides the following assistance:

1. Provides assistance in industrial, commercial and institutional waste minimization;
2. Develops programs and activities to encourage businesses and industries to implement waste minimization measures;
3. Conducts industrial waste minimization planning; and
4. Implements a household hazardous waste prevention and management program and a used automotive fluids management program.

KFB currently presents "Waste in the Work Place" seminars to local businesses with the assistance of state agencies such as P2AD and DCA. In addition, KFB has worked with individual local businesses to facilitate contact with the appropriate agencies to meet their particular waste reduction needs. It is recommended that KFB and RSWS expand programs with commercial, industrial and institutional facilities to reduce solid waste and continue to facilitate contact with the state agencies to provide technical assistance to interested parties. Another option to consider is to what degree the aforementioned recycling facilities (Fayette County and Peachtree City) could meet the needs of the commercial, industrial and institutional sectors.